What is claimed is:

1. A system for performing a surgical procedure within a blood vessel, comprising:

at least one guidewire, said guidewire inserted into a body vessel; and

an antegrade probe having a distal portion, said antegrade probe comprising at least one antegrade guidewire lumen, said antegrade guidewire lumen terminating in at least one guidewire port, said at least one guidewire port positioned radially about said antegrade distal portion substantially parallel to the longitudinal axis of said antegrade probe;

a retrograde probe having a distal portion, said retrograde probe comprising at least one retrograde guidewire lumen, said retrograde guidewire lumen terminating in at least one guidewire port, said at least one retrograde guidewire port positioned radially about said retrograde distal portion substantially parallel to the longitudinal axis of said retrograde probe and co-aligned with said antegrade probe; and

at least one of said antegrade probe and said retrograde probe further comprising at least one lumen.

2. The system of claim 1, wherein said antegrade probe and said retrograde probe are placed over said guidewire so that said guidewire resides within said at least one antegrade guidewire port and said at least one retrograde guidewire port and wherein said at least one retrograde guidewire port is co-aligned with said at least one antegrade guidewire port.

3. The system of claim 1, further comprising a second guidewire and wherein said antegrade probe comprises a first antegrade guidewire lumen terminating in a first antegrade guidewire port and a second antegrade guidewire lumen terminating in a second antegrade guidewire port and said retrograde probe comprises a first retrograde guidewire lumen terminating in a first retrograde guidewire port and a second retrograde guidewire lumen terminating in a second retrograde guidewire port.

4. The system of claim 3, wherein said first guidewire resides within said first antegrade guidewire lumen and said first retrograde guidewire lumen and said second guidewire resides in said second antegrade guidewire lumen and said second retrograde guidewire lumen to align said distal portion of said antegrade probe with said distal portion of said retrograde probe.

5. The system of claim 1, wherein said antegrade probe and said retrograde probe are each engageable with one of the two pieces of tissue, to stabilize the tissue pieces.

6. The system of claim 5, wherein said antegrade probe and retrograde probe are mutually engageable with the two pieces of tissue to stabilize the tissue pieces interposed therebetween.

7. The system of claim 1, wherein said at least one lumen comprises a vacuum lumen.

8. The system of claim 7, wherein said at least one vacuum lumen terminates in at least one vacuum port at said distal portion of said antegrade probe, thereby enabling the grasping and manipulation of tissue.

9. The system of claim 7, wherein said at least one vacuum lumen terminates in at least one vacuum port at said distal portion of said retrograde probe, thereby enabling the grasping and manipulation of tissue.

10. The system of claim 1, wherein at least one of said distal portion of at least one of said antegrade probe and said retrograde probe is substantially perpendicular to said longitudinal axis of said antegrade or retrograde probe.

11. The system of claim 1, wherein said distal portion of at least one said antegrade probe and said retrograde probe is tapered.

12. The system of claim 1, further comprising at least one tissue fastener at the distal end of either said retrograde probe or said antegrade probe.

13. The tissue fastener of claim 12, wherein said tissue fastener is a suture-based tissue fastener.

14. The tissue fastener of claim 12, wherein said tissue fastener is a clip.

15. The tissue fastener of claim12, wherein said tissue fastener is a staple.

16. The system of claim 12, wherein the other one of said antegrade probe and retrograde probe further includes a tissue fastener receiver, said receiver providing cooperative stabilization of tissue while affixing said tissue fastener.

17. The system of claim 1, wherein said at least one lumen comprises a tissue fastening lumen.

18. The system of claim 17, further comprising at least one tissue fastener at the distal end of either said retrograde probe or said antegrade probe.

19. The system of claim 18, wherein said tissue fastener is a needle and suture.

20. A system of claim 1, wherein at least one of said antegrade probe distal portion and said retrograde probe distal portion disposes at least one deployable alignment mechanism.

21. A deployable alignment mechanism of claim 20, comprising:

at least two alignment arms flexibly attached to the distal portion of at least one of said antegrade probe and said retrograde probe;

a deployment conduit operably connected to said at least two alignment arms;

said deployment conduit attached to a deployment actuator;

said at least two alignment arms having a retracted position wherein said arms are located proximal to the distal portion of at least one of said antegrade probe and said retrograde probe;

said at least two alignment arms having a deployed position wherein said arms are extended radially from said distal portion of at least one of said antegrade probe and said retrograde probe; and

said retracted and deployed positions achieved through manipulation of said deployment actuator.

22. The system of claim 21, wherein said at least one lumen comprises an alignment mechanism deployment lumen.

23. The system of claim 1, wherein at least one of said antegrade probe and retrograde probe have sufficient length, steerability and maneuverability to reach the tissue from a peripheral insertion site.

24. The peripheral insertion site of claim 23, wherein the peripheral insertion site is the femoral artery.

25. The peripheral insertion site of claim 23, wherein the peripheral insertion site is the brachial artery.

26. The system of claim 1, further comprising a steering mechanism located proximate to said distal portion of at least one of said antegrade probe and said retrograde probe.

27. The steering mechanism of claim 26, further comprising a steering conduit attached to said distal portion of at least one of said antegrade probe and said retrograde probe, said steering conduit in communication with an operator through one of said at least one antegrade lumen and said at least one retrograde lumen.

28. The system of claim 1, further comprising at least one echogenic member at or near the distal portion of one of said antegrade probe and said retrograde probe to enhance echo visualization.

29. The system of claim 1, further comprising a polymer coating which can be wholly or selectively applied at or near the distal portion of one of said antegrade probe and said retrograde probe to enhance echo visualization.

30. A system for repairing tissue, comprising:

at least one guidewire, said guidewire inserted into a body vessel; and

an antegrade probe having a distal portion, said antegrade probe comprising at least one antegrade guidewire lumen, said antegrade guidewire lumen terminating in at least one guidewire port, said at least one guidewire port positioned radially about said antegrade distal portion substantially parallel to the longitudinal axis of said antegrade probe;

a retrograde probe having a distal portion, said retrograde probe comprising at least one retrograde guidewire lumen, said retrograde guidewire lumen terminating in at least one guidewire port, said at least one retrograde guidewire port positioned radially about said retrograde distal portion substantially parallel to the longitudinal axis of said retrograde probe and co-aligned with said antegrade probe; and

at least one of said antegrade probe and said retrograde probe further comprising at least one vacuum lumen.

31. A system for repairing tissue, comprising:

at least one guidewire, said guidewire inserted into a body vessel; and

an antegrade probe having a distal portion, said antegrade probe comprising at least one antegrade guidewire lumen, said antegrade guidewire lumen terminating in at least one guidewire port, said at least one guidewire port positioned radially about said antegrade distal portion substantially parallel to the longitudinal axis of said antegrade probe;

a retrograde probe having a distal portion, said retrograde probe comprising at least one retrograde guidewire lumen, said retrograde guidewire lumen terminating in at least one guidewire port, said at least one retrograde guidewire port positioned radially about said

retrograde distal portion substantially parallel to the longitudinal axis of said retrograde probe and co-aligned with said antegrade probe;

at least one of said antegrade probe and said retrograde probe further comprising at least one vacuum lumen; and

at least one tissue fastener at the distal end of either said retrograde probe or said antegrade probe.

32. The tissue fastener of claim 31, wherein said tissue fastener is a suture-based tissue fastener.

33. The tissue fastener of claim 31, wherein said tissue fastener is a clip.

34. The tissue fastener of claim 31, wherein said tissue fastener is a staple.

35. The system of claim 31, wherein the other one of said antegrade probe and retrograde probe further includes a tissue fastener receiver, said receiver providing cooperative stabilization of tissue while affixing said tissue fastener.

36. A system for repairing tissue, comprising:

at least one guidewire, said guidewire inserted into a body vessel; and

an antegrade probe having a distal portion, said antegrade probe comprising at least one antegrade guidewire lumen, said antegrade guidewire lumen terminating in at least one guidewire port, said at least one guidewire port positioned radially about said antegrade distal portion substantially parallel to the longitudinal axis of said antegrade probe;

a retrograde probe having a distal portion, said retrograde probe comprising at least one retrograde guidewire lumen, said retrograde guidewire lumen terminating in at least one guidewire port, said at least one retrograde guidewire port positioned radially about said retrograde distal portion substantially parallel to the longitudinal axis of said retrograde probe and co-aligned with said antegrade probe;

at least one of said antegrade probe and said retrograde probe further comprising at least one vacuum lumen.; and

a steering mechanism located proximate to said distal portion of at least one of said antegrade probe and said retrograde probe.

37. The steering mechanism of claim 36, further comprising a steering conduit attached to said distal portion of at least one of said antegrade probe and said retrograde probe, said steering conduit in communication with an operator through one of said at least one antegrade lumen and said at least one retrograde lumen.

38. A method of stabilizing tissue, comprising:

delivering an antegrade probe to a position antegrade to the tissue;

delivering a retrograde probe to a postion retrograde to the tissue;

aligining said first probe and said second probe longitudinally;

using one or more of said first and said second probes to stabilize the tissue; and

using one or more of said first and said second probes to fasten the tissue.

39. The method of claim 38 wherein said antegrade probe and said retrograde probe are used simultaneously to provide cooperative support to the tissue interposed therebetween.

40. The method of claim 38, wherein all of the steps of the method are completed without arresting the heart.

41. The method of claim 38, further comprising the steps of:

delivering a guidewire through an entry point and passing said guidewire through the venous system and the into the left atrium;

using said guidewire to pierce the atrial septum and bringing said guidewire through the mitral valve to the right ventricle, exiting the heart through the aortic valve and aorta, and exiting the body through a exit point;

advancing said antegrade probe over said guidewire through the entry point and delivering said antegrade probe antegrade to the mitral valve; and

advancing said retrorade probe over said guidewire through the exit point and delivering said retrorade probe retrograde to the mitral valve.

42. The method of claim 38 further comprising the step of aligning said antegrade probe and said retrograde probe to interact with and to provide stabilizing support to the tissue.

43. The method of claim 38, further comprising manipulating at least one of the leaflets of the mitral valve disposed proximate to at least one of said antegrade probe and said retrograde probe.

44. The method of claim 38, wherein said tissue is mitral valve leaflet tissue.

45. The method of claim 38, wherein one or more of said first and said second probes utilizes a suture-based fastener to fasten the tissue.

46. The method of claim 38, wherein one or more of said first and said second probes utilizes a clip to fasten the tissue.

47. The method of claim 38, wherein one or more of said first and said second probes utilizes a staple to fasten the tissue.

48. The method of claim 38, wherein at least one of said antegrade probe and said retrograde probe is delivered through a femoral artery.

49. The method of claim 38 wherein at least one of said antegrade probe and said retrograde probe is delivered through a brachial artery.

50. The method of claim 38, wherein the tissue comprises arterial septal tissue.

51. The method of claim 38, wherein the tissue comprises ventricular septal tissue.

52. The method of claim 38, wherein the tissue comprises a patent foramen ovale.